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EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT PAPER NUMBER

3618

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/608,852

Applicant(s)

ORR ET AL.

Examiner

Christopher Bottorff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-9,12-28,36,38,39,41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,12-17,19,20,22-28,36,38,39,41 and 42 is/are rejected.
- 7) ☒ Claim(s) 18 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The amendment filed February 6, 2006 has been entered. Claims 2, 10, 11, 29-35, 37, and 40 are canceled. Claims 1, 3-9, 12-28, 36, 38, 39, 41, and 42 are pending.

#### ***Claim Objections***

Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 currently depends from canceled claim 2. For the purposes of examination, claim 4 has been interpreted as depending from claim 1.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-9, 12, 36, 38, 39, and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Each of claims 1, 36, and 41 recite “a ball-and-socket connection” or “a ball-and-socket interface.” However, the original disclosure does not include a ball-and-socket connection or a ball-and-socket interface. Page 7, lines 13-15, of the specification indicates that the outer surface of the support ring 16 can be convex and the inner surface 15 of the base plate 12 can be concave. Although a ball has a convex surface, an object having a convex surface is not necessarily a ball. The support ring and base plate form a socket at the convex and concave interface, but no ball is present. Consequently, the disclosed concave and convex surfaces do not form a ball-and-socket arrangement specifically. For the purposes of examination, the “ball-and socket connection” limitation has been interpreted as a “connection” and the “ball-and socket interface” limitation has been interpreted as an “interface.” The connection/interface arrangement would be accurately expressed with the convex and concave description provided in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-9, 12-28, 36, 38, 39, and 41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 13, 24, 36, and 41 each recite the terms “pivotal movement”.

Applicants define “pivotal” on page 5, lines 6-8, of the specification as “intended to include pitch and roll movement, or some combination of pitch and roll movement, about

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a substantially fixed central axis.” However, pitch and roll movements in an object, such as the claimed device, occur about two separate axes rather than one fixed axis. Figure 1 of Humbel US 6,428,032 offers an example of this. Thus, the use of “pivotal” in the claims does not invoke the definition of “pivotal” provided in the specification and the limits of the claimed pivotal movement is not clear. For the purposes of examination, “pivotal” is given its ordinary meaning, defined by Merriam Webster’s Collegiate Dictionary, tenth edition, 1997, as “to turn.”

Claims 38 and 39 recites the limitation "the at least one compression element" in lines 1-2 of each claim. There is insufficient antecedent basis for this limitation in the claims since claim 36 was amended to recite plural elements.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 12-14, 17, 19, 20, 23, 24, 26, 27, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Acuna, Jr. US 5,876,045.

In regard to claims 1 and 13, Acuna, Jr. discloses a binding system for mounting a rider's foot to a recreational riding device, comprising a base plate 10, a connecting element 13, and a clamp 19. See Figure 5B. The base plate 10 has an upper, second surface adapted to support a rider's foot; an opposed, lower, first surface adapted to be

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oriented adjacent to and spaced apart from a surface of a recreational riding device at cavity 22; and an opening 20, 22 extending through the base plate between the upper and lower surfaces. See Figure 5B. The connecting element 13 is pivotally disposed within the opening formed in the base plate at cavity 20 and has an outer, sloped surface configured to interface with an inner, sloped surface of the opening in the base plate to form a connection that allows pivotal movement of the base plate about the connecting element. See column 4, lines 32-47. The clamp 19 is disposed within an opening formed through the connecting element 13 and is adapted to engage the connecting element 13 and rigidly mate the connecting element 13 to the recreational riding device. See column 4, lines 38-40.

In regard to claim 24, Acuna, Jr discloses a recreational riding device comprising an elongate board member 5, at least one binding support component 8, a connecting element 13, and a support base 19. See Figure 5B. The elongate board member 5 has upper and lower surfaces. See Figure 5B and Figure 1. The at least one binding support component 8 comprises a base plate 10 having an upper surface configured to support a rider's foot, a lower surface configured to be oriented adjacent to and spaced a distance apart from the elongate board member at cavity 22, and an opening 20, 22 extending therethrough between the upper and lower surfaces. See Figure 5B. The connecting element 13 is pivotally disposed within the opening in the base plate 10 to allow pivotal movement of the base plate 10 about the connecting element 13. See column 4, lines 32-47. The support base 19 is disposed through the connecting

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element 13 and is mated to the elongate board member 5 in a manner that allows the support base 19 to be removed, if desired. See column 4, lines 38-40.

In regard to dependant claims 4, 12, 14, 17, 19, 20, 23, 26, and 27, each of an inner surface of the connecting element 13 and an outer surface of the clamp 19 includes, due to the inherent material properties, imperfections and irregularities to at least a small extent that form cooperating surface features formed on each surface that are effective to prevent rotational movement of the connecting element 13 with respect to the clamp 19 when the clamp 19 is brought into sufficient frictional contact with the connecting element 13. The clamp 19 includes a first end adapted to mount upon the recreational riding device at insert 21, and a second end adapted to be oriented adjacent the rider's foot. See Figure 5B. At least one locking member 70, 75, 78 is adapted to prevent movement of the base plate 10 with respect to the elongate board member 5 in a particular direction. See Figure 5B and column 5, lines 9-17. The connecting element 13 comprises a support ring having a first portion 65 configured to prevent rotational movement of the base plate 10 with respect to the support ring 13, and a second portion mated to the clamp 19 at the head of clamp 19. See Figure 5B and column 5, lines 9-17. Rotational movement of the base plate 10 with respect to the support ring 13 is prevented by a slot 65 and pin 75 configuration at an interface between the support ring 13 and the base plate 10, wherein at least one slot 65 is formed in the support ring 13 and at least one pin member 75 is formed as an attachment on the base plate 10. See Figure 5B and column 5, lines 9-17. Also, the

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base plate 10 includes at least one binding member that forms a portion of binding 8 and is adapted to engage a rider's foot.

In regard to claim 41, Acuna, Jr. discloses a suspension system for supporting a foot, comprising a first member 10 and a second member 13. See Figure 5B. The first member 10 has an upper surface with an elongate configuration shaped to support a foot and an opposed lower surface. See Figure 5B. The second member 13 is positioned a distance apart from the lower surface of the first member 10 and has upper and lower surfaces. See Figure 5B. An interface is disposed between the lower surface of the first member 10 and the upper surface of the second member 13 and is adapted to allow pivotal movement of the first member 10 with respect to the second member 13. See column 4, lines 32-47. Also, an anti-rotation mechanism 75 is formed within the interface and is adapted to prevent rotation of the first member 10 relative to the second member 13 when pin 75 is engaged with slot 65, while allowing pivotal movement of the first member 10 relative to the second member 13 when pin 75 is not engaged with slot 65. See Figure 5B and column 4, lines 32-47.

Claims 24, 27, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Metzger et al. US 5,577,755.

Metzger et al. disclose a recreational sliding device comprising an elongate board member 90 having upper and lower surfaces, a binding support component comprising a base plate 40, a connecting element 70, and a support base 78. See Figure 1. The base plate 40 has an upper surface configured to support a slider's foot,



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a lower surface configured to be oriented adjacent to and spaced a distance apart from the elongate board member 90, and an opening 46 extending therethrough between the upper and lower surfaces. See Figure 1. The connecting element 70 is pivotally disposed within the opening 46 in the base plate 40 to allow pivotal movement of the base plate 40 about the connecting element 70. See Figure 1 and column 1, lines 36-41. The support base 78 is disposed through the connecting element 70 and is removably mated to the elongate board member 90 at 94. See Figure 1.

At least one locking element 66 is provided that is effective to prevent movement of the base plate 40 with respect to the elongate board member 90 in a particular direction. See Figure 1. The locking element 66 is disposed between the base plate 40 and the elongate board member 90. See Figure 5.

Claims 36, 38, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Knapschafer US 5,971,419.

Knapschafer discloses a suspension system for supporting a foot comprising a first member 30 and a second member 22. See Figure 5. The first member 30 has an upper surface adapted to support a foot and an opposed lower surface. See Figures 3 and 5. The second member 22 is positioned a distance apart from the lower surface of the first member 30 and is coupled to the first member by a connection 32, 34, 36 such that pivotal movement is allowed between the first and second members 30, 22. See Figures 4 and 5. A plurality of compression elements 46 is positioned between the lower surface of the first member 30 and the upper surface of the second member 22.

See Figure 5. The plurality of compression elements 46 is spaced a distance apart from the connection 32, 34, 36 and are adapted to control movement between the first and second members 30, 32. See column 5, lines 20-26.

The compression elements 46 are disposed between the first and second members 30, 22 in such a manner that they may be removed with sufficient effort. See Figure 5. Also, the compression elements 46 are formed from rubber, an elastomeric polymer. See column 5, lines 16-17.

Claim 42 is rejected under 35 U.S.C. 102(b) as being anticipated by Bryant US 6,182,987.

Bryant discloses a suspension system for supporting a foot comprising first 12 and second 2 substantially elongate planar members and a support ring 3 connecting the first and second substantially elongate planar members. See Figure 1. The first substantially elongate planar member 12 has at least one mating element, formed by the recess that accommodates element 9, and has a central aperture 5 formed therein with an inner, concave wall.

The mating element engages a rider's foot disposed on the skateboard via intermediate components, such as elements 9-11, the skateboard, and the rider's shoe. This indirect engagement is consistent with the foot engagement experienced in the present invention, which occurs through intermediate components like the rider's boot. Also, the claimed "foot" is not defined as a human foot, and, in an alternative application

of Bryant to claim 42, the lower, threaded portion of element 9 of Bryant is a "foot" of element 9 that is directly engaged to the mating element.

The second substantially elongate planar member 2 is positioned a distance apart from the first member 12. The support ring 3 has a convex peripheral portion that interfaces with the inner, concave wall of the central aperture of the first member 12. Also, the interface is effective to allow movement of the first member 12 with respect to the support ring 3.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 9, 15, 16, 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acuna, Jr. US 5,876,045 in view of Anderson et al. US 6,293,578.

Acuna, Jr. does not disclose at least one compression member removably mated to the lower surface of the base plate. However, Anderson et al. teach the desirability of mating a gasket 49 to a binding system base plate in such a manner that the gasket 49 could be removed with sufficient effort, if desired. See Figure 2. The gasket 49 is made of rubber, a compressible material, thereby teaching the desirability of removably mating a compression member to a lower surface of a base plate. See column 13, lines 11-14. Due to the properties of rubber, the compression member is effective to

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compress between the base plate and a recreational riding device in response to a force applied to at least one of the base plate and the recreational riding device.

From the teachings of Anderson et al., removably mating a compression member to the lower surface of the base plate of Acuna, Jr. would have been obvious to one of ordinary skill in the art at the time the invention was made. This modification would increase the friction between the lower surface of the base plate and the upper surface of the elongate board member and, thereby, limit movement between the base plate and the board member.

#### ***Allowable Subject Matter***

Claims 18 and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 18 defines a peripheral portion of the support ring as being convex and interfacing with an inner, concave wall of the base plate. Claim 21 defines four compression members mated to the lower surface of the base plate. These arrangements, in combination with the further limitations of the claims, are not suggested by the prior art and distinguish the claimed invention over the prior art.

#### ***Response to Arguments***

Applicant's arguments filed February 6, 2006 have been fully considered but they are not persuasive.

The arguments directed to Shands and Humbel are moot in view of the new terms of rejection presented above.

In regard to Acuna, Jr., Applicants assert that the base plate of Acuna does not have an opening that pivotally seats a connecting element, since disc 13 cannot pivot. Although disc 13 does not pivot relative to the board 5, disc 13 and plate 10 do pivot relative to one another. Therefore, disc 13 is pivotally disposed within the opening 20 of plate 10. Also, contrary to Applicants' assertion, Knapschafer does disclose the invention claimed in claims 6, 38, and 39, as described above.

### ***Conclusion***

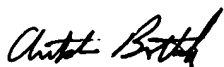
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reuss et al., Gonthier, and Sayce disclose binding arrangements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher Bottorff